

AMENDMENTS TO THE CLAIMS

1. (Currently amended) Medical apparatus adapted for location at least partly within a body passage, the apparatus having a guide member defining a leading end and an aperture in the guide member defining an area for access from the apparatus into the body passage, at least part of the area spaced from the leading end, and the apparatus being controllably movable between collapse and expansion positions, for expanding the body passage, wherein the apparatus incorporates an expansion device comprising a pair of expansion arms adapted to extend ~~across~~ along respective edge regions of the aperture and be moved between the collapse position and the expansion position by controllably elastically deforming said expansion arms to expand the body passage in the region of the aperture, the expansion arms being uninterruptedly separated by the access area.

2. (Original) Apparatus as claimed in claim 1, wherein the apparatus is adapted to be moved between the collapse and expansion positions in incremental steps.

3. (Previously presented) Apparatus as claimed in claim 1, wherein the apparatus is controllably movable between fully collapsed and fully expanded positions, and is adapted to be moved to a position between the fully collapsed and fully expanded positions.

4. (Previously presented) Apparatus as claimed in claim 1, wherein the apparatus is for use in transanal endoscopic microsurgery.

5. (Previously presented) Apparatus as claimed in claim 1, wherein the collapse position of the apparatus is a rest position and the expansion position is a stressed position, and wherein the apparatus is adapted to move to the collapse position in the absence of an applied expansion force.

6. (Currently amended) Apparatus as claimed in claim 1, wherein the collapse position of the apparatus is a first stressed position and the expansion position is a further stressed position, and wherein the apparatus is adapted to move to the first stressed position in the absence of an applied expansion force.

7. (Previously presented) Apparatus as claimed in claim 1, wherein the collapse position of the apparatus is a stressed position and the expansion position is a rest position, and wherein the apparatus is adapted to move to the expansion position in the absence of an applied collapse force.

8. (Previously presented) Apparatus as claimed in claim 1, comprising an actuating device including an activating member adapted for moving the apparatus between the collapse and expansion positions.

9. (Original) Apparatus as claimed in claim 8, wherein the activating member is moveable relative to a remainder of the apparatus.

10. (Previously presented) Apparatus as claimed in claim 9, wherein the actuating device comprises a screw mechanism including a screw threaded member coupled to the activating member, rotation of the screw threaded member adapted to move the activating member relative to the remainder of the apparatus, thereby moving the apparatus between the collapse and expansion positions.

11. (Previously presented) Apparatus as claimed in claim 9, wherein the actuating device comprises a ratchet mechanism including a slider coupled to the activating member and a locking member, movement of the slider relative to the locking member adapted to move the activating member relative to the remainder of the apparatus, thereby moving the apparatus between the collapse and expansion positions.

12. (Previously presented) Apparatus as claimed in claim 8, wherein the actuating device comprises a motor for moving the activating member.

13. (Previously presented) Apparatus as claimed in claim 1, further comprising a lock for locking the apparatus in a desired position.

14. (Previously presented) Apparatus as claimed in claim 1, wherein the access area extends from the leading end and part way along a length of the apparatus.

18. (Previously presented) Apparatus as claimed in claim 1, wherein a distance between the access area and a trailing end of the guide member facilitates access through the opening.

19. (Currently amended) Apparatus as claimed in claim [[15]] 1, wherein the access area is an elongate opening, of a greater dimension in a direction along a main axis of the guide member than in a direction around a perimeter of the guide member.

20. (Currently amended) Apparatus as claimed in claim [[15]] 1, wherein the access area is an opening extending around at least half of a perimeter of the guide member.

21. (Previously presented) Apparatus as claimed in claim 1, including an inlet at a trailing end thereof for access into the apparatus and to the access area.

22. (Currently amended) Apparatus as claimed in claim [[15]] 1, wherein the pair of expansion arms are arm-is mounted on and extends longitudinally with respect to the guide member.

23. (Previously presented) Apparatus as claimed in claim 1, wherein the expansion arm is adapted to adopt a curved shape when in an expansion position.

24. (Previously presented) Apparatus as claimed in claim 1, wherein the expansion arm is of a shape memory alloy.

25. (Currently amended) Apparatus as claimed in claim 1, wherein the expansion arm is adapted to be moved to the expansion position by heating the device above a transition temperature of [[a]] the shape memory alloy.

26. (Previously presented) Apparatus as claimed in claim 8, wherein the expansion device is movable to the expansion position in response to a force applied by the actuating device.

27. (Currently amended) Apparatus as claimed in claim 1, wherein the expansion device further comprises at least one inflatable element, adapted to be inflated to move the apparatus to the expansion position.

28. (Previously presented) Apparatus as claimed in claim 1, wherein the expansion device comprises a plurality of inflatable elements, the elements axially spaced with respect to a main axis of the apparatus.

29. (Previously presented) Apparatus as claimed in claim 27, wherein each expansion arm is elastically deformable and is coupled to a respective inflatable element.

30. (Previously presented) Apparatus as claimed in claim 27, wherein each expansion arm is coupled between at least two respective axially spaced inflatable elements.

31. (Currently amended) Apparatus as claimed in claim [[15]] 1, further comprising a flexible cover extending between the expansion device and the guide member, for preventing any part of the body passage from damage during movement of the expansion device between the collapse and expansion positions.

32. (Previously presented) Apparatus as claimed in claim 1, wherein the expansion device provides a force-feedback to an operator during movement between the collapse and expansion positions.

33. (Previously presented) Apparatus as claimed in claim 1, further comprising a device for measuring an expansion force exerted on the body passage during movement of the apparatus between the collapse and expansion positions.

34. (Currently amended) A method of providing access to a body passage, the method comprising the steps of:

inserting a medical apparatus having a guide member with an aperture in the guide member defining an access area with at least part of the access area being spaced from a leading end of the apparatus, at least partly into a body passage with the apparatus in a collapse position;

controllably moving the apparatus from the collapse position to an expansion position by controllably elastically deforming a pair of expansion arms extending across respective edge regions of the aperture, to expand the body passage in the region of the aperture; and

accessing the body passage through the at least part of the access area spaced from the leading end of the apparatus, at least part of the access area being spaced from a leading end of the apparatus.

35. (Previously presented) A method as claimed in claim 34, further comprising the step of exerting an expansion force on the medical apparatus following insertion into the body passage, to move the apparatus to the expansion position.

36. (Previously presented) A method as claimed in claim 34, further comprising the steps of exerting a collapse force on the medical apparatus, to move the apparatus to the collapse position and to restrain the apparatus in the collapse position for insertion into the body passage, and subsequently releasing the collapse force, whereupon the apparatus moves to the expansion position.

37. (Previously presented) A method as claimed in claim 34, further comprising the steps of controllably moving the apparatus from the expansion position to the collapse position and removing the apparatus from the body passage.

38. (Previously presented) A method as claimed in claim 37, further comprising the steps of rotating the apparatus relative to the body passage, reinserting the apparatus into the body passage and returning the apparatus to the expansion position.

39. (Previously presented) A method as claimed in claim 34, further comprising the steps of returning the apparatus to the collapse position, rotating the apparatus within the body passage, and then returning the apparatus to the expansion position.

40. (Previously presented) A method as claimed in claim 34, further comprising the step of viewing the body passage through the access area.

41. (Previously presented) A method as claimed in claim 34, further comprising the step of conducting a diagnostic procedure on the body passage.

42. (Previously presented) Apparatus as claimed in claim 8, wherein the activating member is configured to move the expansion arms simultaneously.